

6. Introduction of substances into the environment:
See MSDS's for DAM, ECH, Hsi and the platinum catalyst.



GE Silicones

FORMAT :USA

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PRODUCT: 89023

PLATINUM CATALYST

PAGE: 01

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:
GE SILICONES
260 HUDSON RIVER ROAD
WATERFORD, NY 12188

SUPPLIES BY:
GE SILICONES
260 HUDSON RIVER ROAD
WATERFORD, NY 12188

EMERGENCY PHONE (24 HRS)
(518) 257-3330

EMERGENCY PHONE (24 HRS)
(518) 237-3330

REVISED: 02/06/96
PREPARER: GE HANNIGAN
CHEMICAL FAMILY/USE: SILICONE CATALYST
FORMULA: MIXTURE

2. CCV(IPC)SITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION/ CAS REG NO.	APPROX. WGT. %	APPROX TLV TWA	APPROX TLV STEL	OSHA PEL TWA	OSHA PEL STEL	UNITS
A. HAZARDOUS						
TETRAMETHYLDIVINYLDISILOXANE						
2627-95-4	1-5	NF				
PLATINUM DIETHENYLDISILOXANE CMPLX			NE	NF	NE	NA
68478-92-2	10-30	NF	NE	NF	NE	MA
VINYLSILOXANE DIMETHYLPOLYSILOXANE						
68003-19-2	60-80	NA	NE	NA	NE	NA
B. NON-HAZARDOUS						
None Found						

See Section 15 for description of any WHMIS Trade Secret(s).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

This section not in use

POTENTIAL HEALTH EFFECTS:

INGESTION:

Harmful if swallowed.
Causes vomiting, nausea, and diarrhea.
Irritation of the mouth, throat, and stomach.
Results in systematic effects from absorption.

SKIN CONTACT:

Causes burns.
Contains a component which is a known or suspected skin sensitizer.

INHALATION:

Excessive inhalation causes headache, dizziness, nausea and incoordination.
Causes irritation of the mouth, nose, and throat.

*** CONTINUED ON NEXT PAGE ***

PRODUCT: 89023

PLATINUM CATALYST

PAGE : 02

Harmful if inhaled,
This product contains ingredients which may produce an allergic
respiratory response. Treat as a respiratory sensitizer.

May cause Central Nervous System effects.

EYE CONTACT:

Causes severe eye irritation,

Causes eye burns,

MEDICAL CONDITIONS AGGRAVATES:

Respiratory

Dermal ailments,

Central nervous system disorders,

Eye ailments.

SUBCHRONIC (TARGET ORGAN) EFFECTS:

Dermatitis,

Respiratory ailments.

CHRONIC EFFECTS/CARCINOGENICITY:

This product or one of its ingredients present 0.1% or more
is NOT listed as a carcinogen or suspected carcinogen by
NTP, IARC, or OSHA.

PRODUCTS/INGREDIENTS

This space reserved for special use,

PRINCIPLE ROUTES OF EXPOSURE:

Oral.

Dermal - skin.

Eyes.

Inhalation.

OTHER:

This product contains Methylpolysiloxanes which can generate
Formaldehyde at approximately 300 degrees Fahrenheit (150°C)
and above, in atmospheres which contain oxygen. Formaldehyde
is a skin and respiratory sensitizer, eye and throat irritant,
acute toxicant, and potential cancer hazard. An MSDS for
Formaldehyde is available from GE Silicones,

4. FIRST AID MEASURES

INGESTION:

Do not induce vomiting. Slowly dilute with 1-2 glasses of
water or milk and seek medical attention. Never give any-
thing by mouth to an unconscious person.

SKIN:

In case of contact, immediately flush skin with plenty of soap
and water for at least 15 minutes. Get medical attention.
Remove contaminated clothing and launder before reuse.
Remove contaminated shoes and discard.

INHALATION:

If inhaled, remove to fresh air, if not breathing give arti-
ficial respiration, preferably mouth-to-mouth. If breathing is
difficult give oxygen. Get medical attention.

EYES:

In case of contact, or suspected contact, immediately flush
eyes with plenty of water for at least 15 minutes and get
medical attention immediately after flushing.

NOTE TO PHYSICIAN:

None known.

5. FIRE FIGHTING MEASURES

FLASH POINT:

17,22

(CI 63

(F)

METHOD :

PMCC

IGNITION TEMP :

UNK

(C) UNK

(F)

FLAMMABLE LIMITS IN AIR - LOWER (%):

*** CONTINUED ON NEXT PAGE ***

FLAMMABLE LIMITS IN AIR - UPPER (%): UNK
SENSITIVITY TO MECHANICAL IMPACT(Y/N): UNK
SENSITIVITY TO STATIC DISCHARGE: NO

Sensitivity to static discharge is expected; material has a flash point below 200 f.

EXTINGUISHING MEDIA:

All standard firefighting media

SPECIAL FIREFIGHTING PROCEDURES:

Flammable.

Corrosive material,

Wear respiratory protection if in • confined area,

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wipe, scrape or soak up in • n inert material • nd put in a container for disposal.

Wear proper protective equipment as specified in the proactive equipment section.

Remove sources of ignition.

Warn other workers of spill.

Increase area ventilation.

Person not trained should evacuate • rea,

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Use ground strap.

Recommended storage in original container below 30°C (85°F).

Keep container closed when not in use.

Avoid breathing vapors, if • xpo8md to high vapor concentration, leave area at once.

Avoid contact with skin and • yas.

Use only in a well ventilated area.

Warning, Flammable.

Danger, Corrosive.

Do not inhale vapors,

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Exhaust ventilation

Showers.

Eyewash stations,

Use in a well ventilated • rea,

RESPIRATORY PROTECTION:

Use approved NIOSH respiratory protection if TLV exceeded,

Or over • xuosurg is likely.

PROTECTIVE GLOVES:

Rubber gloves.

EYE AND FACE PROTECTION:

Safety glasses.

Monogoggles.

Face shield.

OTHER PROTECTIVE EQUIPMENT:

Rubber • pron,

Rubber overcoat.

VENTILATION:

Use only in well ventilated • rea,

Mechanical ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT INFORMATION:

BOILING POINT :	~ 38	(c) -282	(F)
VAPOR PRESSURE(ZO C)(MMHG):	uNK		
V A P O R DENSITY (AIR=1) :	uNK		
FREEZING POINT :	uNK	(C) UNK	(F)
MELTINS POINT :	uNK	(C) UNK	(F)
PHYSICAL STATE :	L QUID		
ODOR :	NO		
COLOR :	AMBER		
ODOR THRESHOLD (PPM) :	uNK		
% VOLATILE BY VOLUME :	>99		
EVAP. RATE(BUTYL ACETATE=1):	<		
SPECIFIC GRAVITY (WATER=1):	UNK		
DENSITY (KG/M3) :	uNK		
ACID/ALKALINITY (MEQ/G) :	uNK		
PH :	uNK		
VOC (EPA METH.24) (G/L) :	N		
SOLUBILITY IN WATER (20 C) :	NEGL		
SOLUBILITY IN ORGANIC SOLVENT (STATE SOL 'ENT):	SOLUBLE IN XYLENE		

10. STABILITY AND REACTIVITY

STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

HAZARDOUS THERMAL BECOMPO\$XTIOTi/COMBUSTION PRODUCTS:

Carbon monoxide,
Carbon dioxide,
Silicon dioxide,
Toxic metal fumes.
Formaldehyde.

INCOMPATIBILITY [MATERIALS TO AVOID]:
Contact with oxidizing agents,

CONDITIONS TO AVOID:
Keep away from heat, sparks and flame,
Avoid any source of ignition.

11. TOXICOLOGICAL INFORMATION

TETRAMETHYLDIVINYLDISILOXANE

ACUTE ORAL LD50(MG/KG):	NONE FOUND
ACUTE DERMAL LD50(MG/KG):	UNKNOWN
ACUTE INHALATION LC50(MG/L):	LC100 <212MG/L(RAT)
OTHER:	
Tested for acute inhalation LC50.	
AMES TEST:	
PLATINUM DIETHENYLDISILOXANE CMPLX	
ACUTE ORAL LD50(MG/KG):	UNKNOWN
ACUTE DERMAL LD50(MG/KG):	UNKNOWN
ACUTE INHALATION LC50 (MG/L):	UNKNOWN
OTHER:	
None .	

AMES TEST:

VINYL/ST DIMETHYLPOLYSILOXANE
ACUTE ORAL LD50(MG/KG):

ACUTE DERMAL LD50 (MG/KG): NA
ACUTE INHALATION LC50 (MG/L): NA
OTHER: NA
None.

AMES TEST:

12, ECOLOGICAL [FORMATION

EGOTOXICOLOGICAL INFORMATION: No data at this time
CHEMICAL FATE INFORMATION: No data at this time

13, DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:

Disposal should be made in accordance with federal, state and local regulations.
Incineration recommended in approved incinerator according to federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: Flammable liquid, corrosive, N.O.S.
(Tetramethyldivinyl-disiloxane)
DOT HAZARD CLASS: 3, SUBSIDIARY RISK 8
DOT LABEL(S): FLAMMABLE LIQUID, CORROSIVE
UN/NA NUMBER: UN2924
PLACARDS: FLAMMABLE LIQUID, CORROSIVE
IATA:
FLAMMABLE LIQUID, CORROSIVE N.O.S. (TETRAMETHYLDIVINYLDISILOXANE), 3, UN2924, PG II, SUBSIDIARY RISK 8.
IHO INDG-code: 3.2
INDG PG. 3231
EMS No: NA
EUROPEAN CLASS:
RID (0071): 3 6 SUBSIDIARY RISK 8
ADR (ECE): 3 6 SUBSIDIARY RISK 8
RAR (IATA): 3 6 SUBSIDIARY RISK 8

15, REGULATORY INFORMATION

SARA SECTION 302:
None Found
SARA (311,312) HAZARD CLASS:
ACUTE HEALTH HAZARD
FIRE HAZARD
SARA (313)-CHEMICALS:
NONE
CPSC CLASSIFICATION: NA
WHMIS HAZARD CLASS:
B2 FLAMMABLE LIQUIDS
D2A VERY TOXIC MATERIALS
E CORROSIVE MATERIAL
WHMIS TRADE SECRET:
None
EXPORT:
SCHEDULE B/HTSUS: 3815.90 Catalyst Preparation
ECCN: EAR99
HAZARD RATING SYSTEMS
HMIS

NFPA
CALIFORNIA PROPOSITION 65:
NONE

FLAMMABILITY 3 , REACTIVITY 0 , HEALTH 3
FLAMMABILITY 3 , REACTIVITY 0 , HEALTH 3

16. OTHER INFORMATION

This product or its components are on the European inventory of existing commercial chemicals(EINECS).....*...
.....#...
These data are offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific content of the intended use.....

.....
C = ceiling limit NEGL = negligible
EST= estimated NF = none found
NA = net applicable UNKN = unknown
NC = none established RFC = recommended
ND = none determined V = recomm. By vendor
By-product = reaction by- SKN = skin
product, TSCA inventory TS = trade secret
status not required under R = recommended
40 CFR part 720.30(h-2) MST = mist
STEL = short term exposure limit NT = not tasted
limit

DATE PRINTED: 04/25/97

*** END OF MSDS ***



GE Silicones

FORMAT: USA

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PRODUCT: SL6020-D1

POLYSILOXANE-CROSSLINKER

PAGE - 01

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:
GE SILICONES
260 HUDSON RIVER ROAD
WATERFORD, NY 12188

SUPPLIED BY:
GE SILICONES
260 HUDSON RIVER ROAD
WATERFORD, NY 12188

EMERGENCY PHONE (24 HRS)
(518) 237-3330

EMERGENCY PHONE (24 HRS)
(518) 237-3330

REVISED: 92/06/96
PREPARER: CE HANNIGAN
CHEMICAL FAMILY/USE: SILICONE POLYMER
FORMULA: MD'XDYM

2. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION/ CAS REG NO.	APPROX, WGT. %	ACGIH TLV TWA	STEL	OSHA PEL TWA	STEL	UNITS
A. HAZARDOUS						
None Found						
B. NON-HAZARDOUS						
DIMETHYL HYDROGEN POLYSILOXANE						
68037-59-2	80-99	NF		NF		NA

See Section 15 for description of any WHMIS Trade Secret(s).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Colorless Liquid

Mild Odor

Refer to other MSDS sections for detailed information.

POTENTIAL HEALTH EFFECTS:

INGESTION:

Non. known

SKIN CONTACT:

May cause mild skin irritation,

INHALATION:

None Known.

EYE CONTACT:

May cause mild eye irritation.

MEDICAL CONDITIONS AGGRAVATED:

Non. known.

SUBCHRONIC (TARGET ORGAN) EFFECTS:

None known.

CHRONIC EFFECTS/CARCINOGENICITY:

This product or one of its ingredients present 0.1% or more
is NOT listed as a carcinogen or suspected carcinogen by

NTP, IARC, or OSHA.
PRODUCTS/INGREDIENTS

This space reserved for special use.

PRINCIPLE ROUTES OF EXPOSURE:

Ewes,

OTHER:

This product contains Methylpolysiloxanes which can generate Formaldehyde at approximately 300 degrees fahrenheit (150°C) and above, in atmospheres which contain oxygen. Formaldehyde is a skin and respiratory sensitizer, eye and throat irritant, acute toxicant, and potential cancer hazard. An MSDS for Formaldehyde is available from GE Silicones.

4. FIRST AID MEASURES

INGESTION:

Do not induce vomiting. Slightly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

SKIN:

Wash with soap and water.

Get medical attention if irritation persists.

INHALATION:

None known.

EYES:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

NOTE TO PHYSICIAN:

None known.

5. FIRE FIGHTING MEASURES

FLASH POINT:

>100

(C) >212

(F)

METHOD

PMCC

IGNITION TEMP

UNK

(C) UNK

(F)

FLAMMABLE LIMITS IN AIR - LOWER (%):

UNK

FLAMMABLE LIMITS IN AIR - UPPER (%):

UNK

SENSITIVITY TO MECHANICAL IMPACT (Y/N):

NO

SENSITIVITY TO STATIC DISCHARGE:

Sensitivity to static discharge is not expected.

EXTINGUISHING MEDIA:

All standard firefighting media

SPECIAL FIREFIGHTING PROCEDURES:

None known.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wear proper protective equipment as specified in the proactive equipment section.

Wipe, scrape, or soak up in an inert material and put in a container intended for flammable materials for disposal.

7. HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Recommended storage in original container below 30°C (85°F).

Use only in a well ventilated area.

Do not reuse this container.

*** CONTINUED ON NEXT PAGE ***

Relieve any internal pressure when received and at least weekly thereafter by slowly loosening bung. Retighten bung immediately
 Caution!
 Good hygienic practices should be observed. Work clothes should be washed separately at the end of each work day.
 clothing should be discarded with material. Disposable
 Keep container closed when not in use to prevent contact with
 acidic, basic or oxidizing materials, and metallic catalysts like tin compounds and noble metals (Pt, Rh, etc.).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Eyewash stations.

Use in a well ventilated area.

RESPIRATORY PROTECTION:

None known.

PROTECTIVE GLOVES:

Rubber gloves.

EYE AND FACE PROTECTION:

Safety glasses.

OTHER PROTECTIVE EQUIPMENT:

None known.

VENTILATION:

Use only in well ventilated area.

9. PHYSICAL AND CHEMICAL PROPERTIES

DIMETHYL HYDROGEN POLYSILOXANE

SOILING POINT

VAPOR PRESSURE(20 C)(MM HG):

VAPOR DENSITY(AIR=1)

>93

(C)

>200

(F)

NEGL,
NF

PRODUCT INFORMATION:

BOILING POINT

VAPOR PRESSURE(20 C)(MM HG):

VAPOR DENSITY (AIR=1)

FREEZING POINT

MELTING POINT

PHYSICAL STATE

ODOR

COLOR

ODOR

THRESHOLD (PPM)

% VOLATILE BY VOLUME

EVAP. RATE(BUTYL ACETATE=1):

SPECIFIC GRAVITY (WATER=1):

DENSITY (KG/M3)

ACID/ALKALINITY (MEQ/G)

PH

VOC (EPA METH. 241)

SOUB TY N WA ER 20 C

SOUB I IN ORGANIC SO VENT STA E SO ENT EX NE

>204.

(c) >400

(F)

NEG

NA

UNK

(C) UNK

(F)

NA

(C) NA

(F)

LIQUID

SLIGHT

COLORLESS

NA

<5%

<1

UNK

UNK

UNK

UNK

10. STABILITY AND REACTIVITY

STABILITY:

HAZARDOUS POLYMERIZATION:

STABLE

WILL NOT OCCUR

HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:

Carbon monoxide.

Carbon dioxide.

*** CONTINUED ON NEXT PAGE ***

Silicon dioxide.
Flammable hydrogen gas.
Formaldehyde.

INCOMPATIBILITY (MATERIALS TO AVOID):

Avoid contact with acidic, basic, or oxidizing agents, ● n d
metallic catalysts like tin soaps and noble metals (pt, rh,
etc.)...

CONDITIONS TO AVOID:

Product generates flammable gas on contact with acids, bases or
oxidizing materials,

11. TOXICOLOGICAL INFORMATION**PRODUCT INFORMATION:****ACUTE ORAL LD50 (MG/KG):**

UNKNOWN

ACUTE DERMAL LD50 (MG/KG):

UNKNOWN

ACUTE Inhalation LC50 (MG/L):

UNKNOWN

OTHER:

None.

AMES TEST:

UNKNOWN

12. ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION:**

No data at this time

CHEMICAL FATE INFORMATION:

No data at this time

13. DISPOSAL CONSIDERATIONS**DISPOSAL METHOD:**

Disposal should be made in accordance with federal, state and
local regulations.

Incineration recommended in approved incinerator according to
federal, state, ● nd local regulations.

14. TRANSPORT INFORMATION**DOT SHIPPING NAME:**

NONE

DOT HAZARD CLASS:

NOT DOT REGULATED

DOT LABEL(S):

NONE

UN/NA NUMBER:

NONE

PLACARDS:

NONE

IATA:

NA

IMO XHUG-coda:

NONE

EMS No:

NA

EUROPEAN CLASS:**RID (OCTI):**

NONE

ADR (ECE):

NONE

RAR (IATA):

NONE

15. REGULATORY INFORMATION**SARA SECTION 302:**

None Found

SARA [311,312) HAZARD CLASS:

*** CONTINUED ON NEXT PAGE ***

NONE
SARA (313) CHEMICALS:
NONE
CPSC CLASSIFICATION: NA
WHMIS HAZARD CLASS:
NON-CONTROLLED
WHMIS TRADE SECRET:
None
EXPORT:
SCHDLE B/HTSUS: 3910.00 Silicones in Primary Form
ECCN: EAR99
HAZARD RATING SYSTEMS
HMIS
NFPA
CALIFORNIA PROPOSITION 65: FLAMMABILITY 0 , REACTIVITY 1 , HEALTH 0
NONE FLAMMABILITY 0 , REACTIVITY 1 , HEALTH 0

16, OTHER INFORMATION

This product or its components are on the European inventory of existing commercial chemicals (EINECS)

These data are offered in good faith & typical values. No warranty, either expressed or implied, is made. The recommended handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific content of the intended use.

C = ceiling limit
EST = estimated
MA = not applicable
NE = none established
ND = none determined
By-product = reaction by-product, TSCA inventory
status not required under 40 CFR part 720.30(h-2)
TEL = short term exposure limit
NEGL = negligible
NF = none found
UNKN = unknown
REC = recommended
V = recommended by vendor
SKN = skin
TS = trade secret
R = recommended
MST = mist
NT = not tested

If shipment by air is required, be certain that container has not been contaminated by acidic, basic, or oxidizing materials and container is undamaged.

DATE PRINTED: 04/25/9.7

*** END OF MSDS ***



GE Silicones

FORMAT:USA

MATERIAL SAFETY DATA SHEET
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PRODUCT : 067353

MALEIC ACID, DIALLYL ESTER

PAGE : 01

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:
BIMAX, INC.
P.O. BOX 194
PHOENIX, MD 21131SUPPLIED BY:
BIMAX, INC.
P.O. BOX 194
PHOENIX, MD 21131EMERGENCY PHONE (24 HRS)
(301)S92-8484EMERGENCY PHONE (24 HRS)
(301)S92-8484REVISED: 04/06/95
PREPARER: GE HANNIGAN
CHEMICAL FAMILY/USE: ESTER
FORMULA: C10H12O4

2. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION/ CAS REG NO.	APPROX. WGT. %	ACGIH TLV TWA	STEL	OSHA PEL TWA	STEL	UNITS
A. HAZARDOUS						
DIALLYL MALEATE						
999-21-3	00-99	MA	NE	NA	NE	NA
B. NON-HAZARDOUS						
None Found						

See Section 15 for description of any WHMIS Trade Secret(s).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Straw Colored Liquid
Pungent Odor
Harmful if inhaled.
May be fatal if swallowed.
Harmful if absorbed through the skin.
Do not inhale vapors.
Avoid contact with skin and eyes.
Causes moderate skin irritation.
May cause moderate eye irritation.
Causes severe respiratory irritation.
Refer to other MSDS sections for detailed information.

POTENTIAL HEALTH EFFECTS:

INGESTION:

May be fatal if swallowed.

SKIN CONTACT:

Causes moderate skin irritation.
Harmful if absorbed through the skin.

INHALATION:

Causes severe respiratory irritation.

* ON NUED ON NEX PAGE

Harmful if inhaled.

EYE CONTACT:

Causes moderate eye irritation

May cause corneal injury.

MEDICAL CONDITIONS AGGRAVATED:

Respiratory

Liver, kidney

Dermal ailments.

SUBCHRONIC (TARGET ORGAN) EFFECTS:

Dermatitis,

Respiratory ailments.

Liver and kidney damage.

Corneal damage.

CHRONIC EFFECTS/CARCINOGENICITY:

This product or one of its ingredients present 0.1% or more

is NOT listed as a carcinogen or suspected carcinogen by

NTP, IARC, or OSHA.

PRODUCTS/INGREDIENTS

This space reserved for special use.

PRINCIPLE ROUTES OF EXPOSURE:

Oral.

Dermal - skin.

Eyes.

Inhalation,

Absorption through skin,

OTHER:

None known.

4. FIRST AID MEASURES

INGESTION:

If swallowed induce vomiting immediately by giving

two glasses of water and sticking fingers down throat;

never give anything to an unconscious person, Get medical

● tttant50n.

SKIN:

In case of contact, immediately flush skin with plenty of seas

● nd water for atleast 15 minutes, Get medical attention.

Remove contaminated clothing ● nd launder before reuse,

Remove contaminated shoes and dastard.

INHALATION:

If inhaled, remove to fresh air, if not breathing give artifi-

cial respiration, preferably mouth-to mouth. If breathing is

difficult give oxygen. Get medical attention,

EYES:

In case of contact, or suspected contact, immediately flush

eyes with plenty of water for atleast 15 minutes and gat

medical attention immediately after flushing.

NOTE TO PHYSICIAN:

None known.

5. FIRE FIGHTING MEASURES

FLASH POINT:**METHOD**

123

(C) 253

(F)

IGNITION TEMP

OC

FLAMMABLE LIMITS IN AIR - LOWER (%):

UNK

(C) UNK

(F)

FLAMMABLE LIMITS IN AIR - UPPER (%):

UNK

SENSITIVITY TO MECHANICAL IMPACT(Y/N):

NO

SENSITIVITY TO STATIC DISCHARGE:

Sensitivity to static discharge is not ● xpeeted,

EXTINGUISHING MEDIA:

All standard firefighting media

SPECIAL FIREFIGHTING PROCEDURES:

Wear respiratory protection if in a confined area.
Positive pressure, self-contained breathing apparatus
Wear full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:

Wipe, scrape or soak up in an inert material and put in a container for disposal,
Wear proper Protective equipment as specified in the protective equipment section.
Warn other workers of spill.

7* HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Keep container closed when not in use.
Avoid breathing vapors, if exposed to high vapor concentration, leave the area.
Avoid contact with skin and eyes.
Use only in a well ventilated area.
Do not inhale vapors,
Wash hands before eating and smoking,
Danger! Poison,

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Exhaust ventilation

Showers.

Eyewash stations,

RESPIRATORY PROTECTION:

Use in a well ventilated area.

Appropriate respiratory protection shall be worn when applied

when engineering controls are not adequate to protect against inhalation exposure,

PROTECTIVE GLOVES:

Rubber gloves.

EYE AND FACE PROTECTION:

Monogoggles.

Face shield.

OTHER PROTECTIVE EQUIPMENT:

Rubber apron,

VENTILATION:

Use only in well ventilated area.

Mechanical ventilation,

9* PHYSICAL AND CHEMICAL PROPERTIES

PRODUCT INFORMATION:

BOILING POINT	:	112	CC) 233.6	(F)
VAPOR PRESSURE(20 C)(MM HG):	:	NA		
VAPOR DENSITY(AIR=1)	:	6.6		
FREEZING POINT	:	UNK	CC) UNK	(F)
MELTING POINT	:	UNK	(C) UNK	(F)
PHYSICAL STATE	:	LIQUID		
ODOR	:	PUNGENT		
COLOR	:			

PRODUCT: 067353

MALEIC ACID, DIALLYL ESTER

PAGE: 04

ODOR THRESHOLD (PPM)	:	CLEAR, PALE YEL.
% VOLATILE BY VOLUME	:	UNK
EVAP. RATE (BUTYL ACETATE=1):	:	<1.0
SPECIFIC GRAVITY (WATER=1):	:	<1
DENSITY (KG/M3)	:	1.073
ACID/ALKALINITY (MEQ/G)	:	UNK
PH	:	UNK
VOC (EPA METH.24) (G/L)	:	NA
SOLUBILITY IN WATER (20 C)	:	NT
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT):	:	INSOLUBLE
	:	UNKNOWN

10. STABILITY AND REACTIVITY

STABILITY:	STABLE
HAZARDOUS POLYMERIZATION:	WILL NOT OCCUR
HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:	
Phenol.	
Fumes of allylic compounds.	
INCOMPATIBILITY (MATERIALS TO AVOID):	
Contact with oxidizing agents.	
CONDITIONS TO AVOID:	
None known.	

11. TOXICOLOGICAL INFORMATION

PRODUCT INFURIATION:	
ACUTE ORAL LD50 (MG/KG):	ORL RAT 300
ACUTE DERMAL LD50 (MG/KG):	SKN RBT 1150
ACUTE INHALATION LC50 (MG/L):	>257PPM RAT
OTHER:	
Non..	
AMES TEST:	NEGATIVE

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION:	No data at this time
CHEMICAL FATE INFORMATION:	No data at this time

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:
Disposal should be made in accordance with federal, state and local Peculations.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME:	TOXIC LIQUID, ORGANIC N.O.S. (DIALLYL HALEATE)
DOT HAZARD CLASS:	6.1
DOT LABEL(S):	KEEP AWAY FROM FOOD
UN/NA NUMBER:	UN2810
PLACARDS:	KEEP AWAY FROM FOOD
IATA:	
Toxic, Liquid, Organic N.O.S. (Diallylmalate), 6.1, UN2810,	
111,	
X140 IMDG-code:	

IMDG PG. 6270-1	6,1
ENS No:	NA
EUROPEAN CLASS:	
RID (OCTI):	POISONOUS
ADR (ECE) :	6.1
RAR (ATA):	6.1

15. REGULATORY INFORMATION

SARA SECTION 302:

None Found

SARA (311,312) HAZARD CLASS:

ACUTE HEALTH HAZARD

CHRONIC HEALTH HAZARD

SARA (313) CHEMICALS:

NONE

CPSC CLASSIFICATION:

NA

WHMIS HAZARD CLASS:

D1B TOXIC MATERIALS

D2B TOXIC MATERIALS

WHMIS TRADE SECRET:

None

EXPORT:

SCHDLE E/NTSUS:

ECCN:

HAZARD RATING SYSTEMS

HMIS

NFPA

FLAMMABILITY 0 , REACTIVITY 0 , HEALTH 3

FLAMMABILITY 0 , REACTIVITY 0 , HEALTH 3

-- CALIFORNIA PROPOSITION 65:

NONE

16. OTHER INFORMATION

This product or its components are on the European inventory of
 existing commercial chemicals (EINECS).....

6,.....

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 as a product specification. No warranty, either expressed or
 implied, is made. The recommended handling procedures are
 believed to be generally applicable. However, each user should
 review these recommendations in the specific content of the
 intended use.....

C = ceiling limit

EST = estimated

NA = not applicable

NE = none established

ND = none determined

By-product = reaction by-

product, TSCA inventory

status not required under

40 CFR part 720.30(h-2)

STEL = short term exposure
limit

NEGL = negligible

NF = none found

UNKN = unknown

REC = recommended

V = recommended by vendor

SKN = skin

TS = trade secret

R = recommended

MST = mist

NT = not tested

DATE PRINTED: 04/25/97

*** END OF MSDS ***



GE Silicones

FORMAT: USA

MATERIAL SAFETY DATA SHEET
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PRODUCT: 067429

1-ETHYNYL-1-CYCLOHEXANOL

PAGE: 01

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURED BY:

BASF
3000 CONTINENTAL DRIVE, NORTH
MT. OLIVE, NJ 07828

EMERGENCY PHONE (24 HRS)
(518)237-3330

SUPPLIED BY:

PFALTZ & BAUER INC.
172 E. AURORA STREET
WATERBURY, CT 06708

EMERGENCY PHONE (24 HRS)
(518)237-3330

MTM RESEARCH CHEMICALS, INC.
P.O. BOX 1000
WINDHAM, NH 03087

EMERGENCY PHONE (24 HRS)
(603)889-3306

SAF BULK CHEMICALS, INC.
1001 W. SAINT PAUL AVENUE
MILWAUKEE, WI 53233

EMERGENCY PHONE (24 HRS)
800255-3756

REVISED: 05/18/9s
PREPARER: GE HANNIGAN
CHEMICAL FAMILY/USE: ALCOHOL
FORMULA: C8H12O

2. COMPOSITION/INFORMATION ON INGREDIENTS

PRODUCT COMPOSITION/ CAS REG NO.	APPROX. WGT. %	ACGIH TLV TWA	OSHA PEL STEL	OSHA PEL TWA	STEL UNITS
A. HAZARDOUS					
1-ETHYNYL-1-CYCLOHEXANOL					
78-27-3	>98	NA	NA	NA	NA
B. NON-HAZARDOUS					
None Found					

See Section 15 for description of any WHMIS Trade Secret(s).

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

This section not in use
POTENTIAL HEALTH EFFECTS:

INGESTION:

Harmful if swallowed.
Causes vomiting, nausea, and diarrhea

*** CONTINUED ON NEXT PAGE ***

Irritation of the mouth, throat, and stomach,

SKIN CONTACT:

Causes mild skin irritation.

Harmful if absorbed thru the skin,

INHALATION:

Causes irritation of the mouth, nose, and throat.

Harmful if inhaled.

Irritates mucous membranes.

EYE CONTACT:

Causes eye irritation.

MEDICAL CONDITIONS AGGRAVATED:

None known.

SUBCHRONIC (TARGET ORGAN) EFFECTS:

Non. known.

CHRONIC EFFECTS/CARCINOGENICITY:

This product or one of its ingredients present 0.1% or more is NOT listed as a carcinogen or suspected carcinogen by

NTP, IARC, or OSHA.

PRODUCTS/INGREDIENTS

This space reserved for special use,

PRINCIPLE ROUTES OF EXPOSURE:

Oral.

Dermal skin,

Eyes.

Inhalation.

Absorption through skin.

OTHER:

None known.

4. FIRST-AID MEASURES

INGESTION:

Do not induce vomiting. Slowly dilute with 1-2 glasses of water or milk and seek medical attention. Never give anything by mouth to an unconscious person.

SKIN:

In case of contact, immediately flush skin with plenty of soap

and water for at least 15 minutes. Get medical attention.

INHALATION:

If inhaled, remove to fresh air, if not breathing give artificial respiration, preferably mouth-to-mouth, if breathing is difficult give oxygen. Get medical attention.

EYES:

In case of contact, or suspected contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention immediately after flushing.

NOTE TO PHYSICIAN:

None known.

5. FIRE FIGHTING MEASURES

FLASH POINT:

77

(CJ 170.6

(F)

METHOD

CC

IGNITION TEMP

UNK

(CJ UNK

(F)

FLAMMABLE LIMITS IN AIR - LOWER (%): NA

FLAMMABLE LIMITS IN AIR - UPPER (%): NA

SENSITIVITY TO MECHANICAL IMPACT (Y/N): NO

SENSITIVITY TO STATIC DISCHARGE:

Sensitivity to static discharge is expected; material has a flash point below 200 f.

EXTINGUISHING MEDIA:

Alcohol foam

Carbon dioxide

Dry chemical

*** CONTINUED ON NEXT PAGE ***

SPECIAL FIREFIGHTING PROCEDURES:

Combustible.
Positive pressure, self-contained breathing apparatus
Wear full protective clothing.

6. ACCIDENTAL RELEASE MEASURES**ACTION TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:**

Wear proper protective equipment as specified in the protective equipment section.
Remove sources of ignition,
Warn other workers of spill.
Increase area ventilation.
Person not trained should evacuate area.

7. HANDLING AND STORAGE**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:**

Use ground strain.
Recommended storage in original container below 30°C (85°F).
Keep container closed when not in use.
Avoid breathing vapors, if exposure to high vapor concentration, leave area once.
Avoid contact with skin and eyes,
Use only in well ventilated area.
Do not reuse this container,
Keep away from food and smoking materials.
Wash hands before eating and smoking.
Emptied containers may retain hazardous properties. Do not cut, puncture or weld on or near the container.
Good hygienic practices should be observed, Work clothes should be washed separately at the end of each work day. Disposable clothing should be discarded with material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**ENGINEERING CONTROLS:**

Exhaust ventilation
Showers.
Eyewash stations,
Use in well ventilated area,

RESPIRATORY PROTECTION:

Use approved NIOSH respiratory protection if TLV exceeded.....
Or over exposure is likely.

PROTECTIVE GLOVES:

Rubber gloves.

EYE AND FACE PROTECTION:

Safety glasses.
Monogoggles.

OTHER PROTECTIVE EQUIPMENT:

Rubber raincoat.

VENTILATION:

Use only in well ventilated area.
Mechanical ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES**PRODUCT INFORMATION:**

PRODUCT : 067429

1-ETHYNYL-1-CYCLOHEXANOL

PAGE: 04

BOILING POINT :	180	(C) 356	(F)
VAPOR PRESSURE(20 C)(MMHG):	<1		
VAPOR DENSITY (AIR=1) :	UNK		
FREEZING POINT :	NA	(C) NA	(F)
MELTING POINT :	30	(C) 86	(F)
PHYSICAL STATE :	LIQUID		
ODOR :	CAMPHOR-LIKE		
COLOR :	WHITE		
ODOR THRESHOLD (PPM) :	UNK		
% VOLATILE BY VOLUME :	UNK		
EVAP. RATE(BUTYL ACETATE=1):	UNK		
SPECIFIC GRAVITY (WATER=1):	0.976		
DENSITY (KG/M3) :	976		
ACID/ALKALINITY (MEQ/G) :	UNK		
PH :	NA		
VOC (EPA METH.24) (G/L) :	NT		
SOLUBILITY IN WATER [20 C]:	MODERATE		
SOLUBILITY IN ORGANIC SOLVENT (STATE SOLVENT):	UNKNOWN		

10. STABILITY AND REACTIVITY

STABILITY: STABLE
 HAZARDOUS POLYMERIZATION: WILL NOT OCCUR
 HAZARDOUS THERMAL DECOMPOSITION/COMBUSTION PRODUCTS:
 Carbon monoxide,
 Carbon dioxide.
 Toxic fumes.
 INCOW4TIPLST% (MATERIALS TO AVOID):
 Contact with oxidizing agents.
 CONDITIONS TO AVOID:
 None known.

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:
 ACUTE ORAL LD50 (MG/KG): 600 (RAT)
 ACUTE DERMAL LD50 (MG/KG): 1,000 (RBT)
 ACUTE INHALATION LC50 (MG/L): UNKNOWN
 OTHER:
 Mildly irritating to skin (rbt).
 AMES TEST: UNKNOWN

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION: No data at this time
 CHEMICAL FATE INFORMATION: No data at this time

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD:
 Disposal should be made in accordance with federal, state and local regulations.
 Incineration recommended in approved incinerator according to federal, state, and local regulations.

14. TRANSPORT INFORMATION

DOT SHIPPING NAME: TOXIC SOLID, ORGANIC, N.O. S.
 (1-ETHYNYL-1-CYCLOHEXANOL)
 DOT HAZARD CLASS: 6.1
 DOT LABEL(S): KEEP AWAY FROM FOOD
 UN/NA NUMBER: UN2811
 PLACARDS: KEEP AWAY FROM FOOD
 IATA:
 Do not ship unless first contacting Product Regulatory.
 IMO IMDG-code: 6.1
 IMDG PG. 6270-1
 EMS No: NA
 EUROPEAN CLASS:
 RID (OCTI): 6.1
 ADR (ECE): 6.1
 RAR (IATA): 6.1

15. REGULATORY INFORMATION

SARA SECTION 302:
 None Found
 SARA (311,312) HAZARD CLASS:
 ACUTE HEALTH HAZARD
 SARA (313) CHEMICALS:
 NONE
 CPSC CLASSIFICATION: NA
 WHMIS HAZARD CLASS:
 D3 COMBUSTIBLE LIQUIDS
 D2B TOXIC MATERIALS
 WHMIS TRADE SECRET:
 Norm
 EXPORT:
 SCHDL E/HTSUS: 2906.19 Cyclic Alcohols
 EECN: EAR99
 HAZARD RATING SYSTEMS
 HMIS FLAMMABILITY 2 , REACTIVITY 0 , HEALTH 2
 NFPA FLAMMABILITY 2 , REACTIVITY 0 , HEALTH 2
 CALIFORNIA PROPOSITION 65:
 NONE

16. OTHER INFORMATION

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 • s a product specification. No warranty, either expressed or
 implied, is made. The recommended handling procedures are
 believed to be generally applicable. However, each user should
 review these recommendations in the specific content of the
 intended use.

* *

C = ceiling limit	NEGL = negligible
EST = estimated	NF = none found
NA = not applicable	UNKN = unknown
ME m none • m+mblished	REC = recommended
ND = none determined	U = recomm. By vendor
By-product = reaction by-	SKN = skin
product, TSCA inventory	TS = trade secret
status not required under	R = recommended
40 CFR part 720.30(h-2)	MST = mist
STEL = short term exposure	NT = not tested
limit	

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DATE PRINTED:

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*** END OF MSDS ***